

Applicant(s): Iellici et al.
Serial Number: 10/560,739
Page 4

Attorney Docket: P-8434-US

REMARKS

The present Amendment and Response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is therefore respectfully requested.

Status of Claims

Claims 1-12 are pending in the application. Claims 1-12 have been rejected. The rejected claims 1-12 have now been amended, and claims 6 and 13 have been cancelled without prejudice to their filing in a divisional or continuation application. New claim 14 has been added. No new matter has been added.

CLAIM REJECTIONS

35 U.S.C. § 112 Rejection

Claims 7, 8 and 10 have been rejected under 35 USC §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 7 and 8 have been amended to recite "the first side of the dielectric substrate" and claim 10 is now proper in view of the amendments made to claim 1. Accordingly, applicants believe that claims 7, 8 and 10 are now in compliance with 35 USC §112 and respectfully request that the Examiner's rejection based on 35 USC § 112 be withdrawn.

35 U.S.C. §§ 102 and 103 Rejections

Claims 1-3 and 5-12 are rejected under 35 USC § 102 as being anticipated by Bit-Babik (US 2003/0043075). Claim 4 is rejected under 35 USC § 103(a) as being unpatentable over Bit-Babik in view of Kingsley et al (US Pat. No. 7,253,789).

Applicants respectfully disagree with the Examiner's reading of Bit-Babik. Bit-Babik does not disclose an integrated antenna device comprising a first, dielectric antenna and a second, electrically-conductive antenna, wherein the first and second antennas are not electrically connected to each other but are mutually arranged such that the second antenna is parasitically driven by the first antenna when the first antenna is fed with a predetermined

Applicant(s): Iellici et al.
Serial Number: 10/560,739
Page 5

Attorney Docket: P-8434-US

signal wherein the second antenna is connected to ground, and wherein the first and second antennas are configured to radiate in different frequency bands.

None of the antenna devices disclosed in Bit-Babik (see FIGS. 2, 13, 15, 19, 20 and 24-27) show the device recited in amended claim 1. For example, in FIG. 13 Bit-Babik discloses an arrangement in which a conductive strip 1302 (see Figure 13) is provided on top of a DRA. However, it will be noted that the conductive strip 1302, which does indeed act as a parasitic radiator, is **not grounded**, and therefore acts as a dipole antenna. Moreover, the conductive strip is parasitically excited by the microstrip feed 206 at the bottom of the DRA, rather than by the DRA itself. FIG. 2 also shows a dielectric resonator antenna structure without any parasitically driven antenna or parasitically driven radiator; the dielectric slab 202 has a ground plane on its bottom side, but there are no connections from any parasitically driven antennas to that ground plane.

FIG. 15 is similar to FIG. 13 except that the conductive microstrip is extended with the use of microstrip 1502 positioned perpendicular with respect to microstrip 1302 and electrically connected to microstrip 1302. Neither of the microstrips (1302, 1502) are grounded. FIG. 19 shows an arrangement where a conductive ribbon is shaped into three portions 1902A, 1902B and 1902C. Portions 1902A and 102B are mounted onto dielectric material 1904 and Dielectric Resonating Antenna (DRA) 210 respectively. The middle portion 1902B does not touch or make contact with any material. Again, the conductive strip (1902A, 1902B, 1902C) acting as the parasitically driven antenna is not grounded.

FIG. 20 shows yet another arrangement in which conductive strips 2012 and 2002 are mounted at the top and bottom of DRA 210 respectively. Neither of the conductive strips are grounded. In fact, both conductive strips are connected to dielectric plate 2014 as shown. FIGS. 24-26 show various arrangements in which a DRA 210 is mounted on a microstrip 2404 all of which are mounted on a substrate 2402. Again, as it has been already shown in the previous arrangements discussed above, there is no grounded parasitically driven antenna shown in the arrangements of FIGS. 24-26. FIG. 27 shows an antenna structure within a cellular telephone in which DRA 2710 is mounted on a substrate 202 which has an opposite side 204 that is a ground plane. The substrate 202 is similar to the substrate 202 shown in FIG. 2 in that one side of the substrate is a ground plane. As has already been explained with respect to FIG. 2, no grounded parasitically driven antenna is shown in FIG. 27.

Applicant(s): Iellici et al.
Serial Number: 10/560,739
Page 6

Attorney Docket: P-8434-US

In sum, none of the antenna structures disclosed in Bit-Babik disclose the device recited in amended claim 1. Most notably, none of the devices even show a parasitically antenna driven as being grounded. Further, none of the devices are configured such that the antennas of the structure radiate in different frequency bands. Therefore, claim 1 and thus its corresponding dependent claims (including claim 4) are not anticipated by Bit-Babik.

Claim 4 which has been rejected based on a combination of Bit-Babik and Kingsley is clearly not anticipated by such as combination as Bit-Babik by itself does not have the key features recited in amended claim 1 and thus the claim that Kingsley teaches a component comprising a dielectric loaded antenna is of no consequence. Kingsley does not cure the deficiencies of Bit-Babik.

Applicants have now become aware of a new prior art reference, US Pat. No. 5,434,579, (Kagoshima et al.) which was filed in an Information Disclosure Statement on June 10, 2008. Kagoshima discloses an arrangement in which a conductive microstrip is used to feed an inverted F antenna, which is grounded by way of a grounding conductor 33, by non-contact feeding. The conductive microstrip may be formed on a dielectric element. However, the feeding is such that both the microstrip and the inverted F antenna operate at the same frequency f_0 , and therefore claim 1, as amended, which recites that the antennas are configured to radiate in different frequency bands is clearly distinguishable from this reference.

Applicants therefore request that the Examiner withdraw the rejections under 35 USC 102 and 35 USC 103.

Conclusion

In view of the foregoing amendment and remarks, applicants assert that claim 1 and its correspondent dependent claims 2-5, and 7-12 and new dependent claim 14 are allowable for at least the reasons stated above. A favorable reconsideration and allowance of all the claims is respectfully requested.

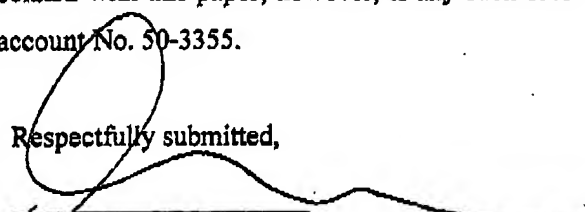
Should the Examiner have any questions or comments as to form, content or entry of this Amendment, the Examiner is requested to contact the undersigned as the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Applicant(s): Iellici et al.
Serial Number: 10/560,739
Page 7

Attorney Docket: P-8434-US

No fees are believed to be due associated with this paper; however, if any such fees are due, please charge such fees to deposit account No. 50-3355.

Respectfully submitted,



Caleb Pollack
Attorney for Applicant(s)
Registration No. 37,912

Dated: July 2, 2008

Pearl Cohen Zedek Latzer, LLP.
1500 Broadway, 12th Floor
New York, NY 10036
Phone: (646) 878-0844
Fax: (646) 878-0801